

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)



Applicant's or agent's file reference PD020059	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/06342	International filing date (<i>day/month/year</i>) 16.06.2003	Priority date (<i>day/month/year</i>) 28.06.2002
International Patent Classification (IPC) or both national classification and IPC G11B7/125		
Applicant THOMSON LICENSING S.A. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 22.12.2003	Date of completion of this report 20.09.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Moje, A Telephone No. +49 89 2399-2701 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/06342**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-16 as originally filed

Claims, Numbers

1-5 received on 03.05.2004 with letter of 03.05.2004

Drawings, Sheets

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-5
	No: Claims	
Inventive step (IS)	Yes: Claims	1-5
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-5
	No: Claims	

2. Citations and explanations

see separate sheet

1. Reference is made to the following documents:

D1: EP -A- 1 170 840

D2: EP -A- 1 005 121

D3 : US -B- 6 295 260

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Claims 1-5 appear to meet the requirements of Articles 33(2) and 33(3) PCT for the following reasons:

Even a combination of closest prior art D1 with D2 does not lead to a circuit configuration wherein the logic circuit of D2 is adapted to open the switches with simultaneous action as claimed (cf. claim 1 last two lines). This allows for the isolation of the adjusting resistors when the laser diodes are erroneously driven simultaneously. The logic circuit (24) of D2 does only prevent from simultaneous closure of the switches. D3 is remote.

Claims 2-5 meet the requirements of the PCT by virtue of their dependence.

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Patent Claims

1. An intrinsically safe pick-up for reproduction or recording devices for different optical recording media having at least two laser diodes (LD1, LD2) and having a monitor diode (PD) which controls the different light power levels of the laser diodes (LD1, LD2), comprising:
a switching means (SW), which is formed with interlocked switches (S1, S2), comprises a logic circuit in order to generate a reference value which is associated with a laser diode (LD1 or LD2) in order to produce a reference value which is associated with one laser diode (LD1 or LD2) with the monitor diode (PD) and in order to form an intrinsically safe pick-up (EPU), whereby said logic circuit prevents simultaneous closure of the switches (S1, S2) and opens the switches (S1, S2) with simultaneous actuation.
2. An intrinsically safe pick-up according to claim 1, wherein the switching means (SW) comprises a logic circuit which is formed by two AND gates (U1, U2) each having an inverting input, and in which each inverting input of an AND gate (U1 or U2, respectively) is connected to the input of the other AND gate (U2 or U1, respectively), to which a switching signal (tSW1, tSW2) is applied for one of the switches (S1 or S2) of the switching means (SW), whose control input is connected to the output of the AND gate (U1 or U2) to whose input the switching signal (tSW1, tSW2) for the switch (S1 or S2) is applied.

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3. An intrinsically safe pick-up according to claim 1, wherein the switches (S1, S2) of the switching means are controlled via a logic circuit, which interlocks the switches (S1, S2) and forms an intrinsically safe pick-up (EPU), by means of switching signals (tSW1, tSW2) from a modulator assembly (BMOD) which is connected to the laser diodes (LD1 or LD2).
4. An intrinsically safe pick-up according to claim 3, wherein a modulator (MOD) is provided in the modulator assembly (BMOD) for each of the laser diodes (LD1 or LD2) and has a control assembly (contr) which switches on the modulator (MOD) when the laser diode (LD1, LD2) to which it is connected is actuated, and wherein the control assembly (contr) generates a switching signal (tSW) for controlling the switches (S1, S2) by means of the logic circuit.
5. An intrinsically safe pick-up according to claim 1, wherein the control inputs of the switches (S1, S2) of the switching means (SW) are connected to comparators (K1, K2) which are connected to the laser diodes (LD1 or LD2), via a logic circuit which interlocks the switches (S1, S2) and forms an intrinsically safe pick-up (EPU).